



HotPort® 7000-900 Wireless Mesh Nodes

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HotPort 7000-900 mesh nodes provide reliable Ethernet connectivity over a high-performance, self-forming wireless mesh backbone—indoors, outdoors, or onboard moving vehicles. All HotPort nodes have multiple Ethernet ports for connecting network devices or other networks to the wireless mesh. HotPort 7000-900 mesh features a dual radio solution with capability of operating in the 900 MHz spectrum on one radio while concurrently operating in the 2.4 GHz, 4.9 GHz (U.S. public safety licensed band) or 5 GHz frequency ranges on the other.

HotPort 7000 mesh can utilize channel widths of 5, 10, 20 and 40 MHz (Mimo only), with 5 and 10 MHz channel widths only available on the 4.9 GHz and 900 MHz.

Reliable Connectivity Anywhere™

Designed for seamless indoor and outdoor operation, the HotPort mesh network securely handles concurrent video, voice, and data applications, making it ideal for municipal, public safety, and industrial networks. The mesh's self-forming and self-healing properties enable rapid deployment and dependable operation. FireTide's AutoMesh™ routing protocol manages network load and traffic congestion to optimize mesh-wide performance and capacity.

FireTide's end-to-end solution includes HotPort nodes for mesh infrastructure, HotPoint® access points for wireless access, HotView™ software for a complete management system, and HotView Controller™ for mesh and client mobility.

Non-Line-of-Sight Performance

With the new HotPort 7000-900, users with non-line-of-sight locations can now deploy multi-hop, fully meshed networks and receive its benefits of redundancy and load

balancing, thereby improving reliability of their networks. The product enables bandwidth intensive applications such as video surveillance and broadband access traffic and extends mesh reliability, performance and services into these difficult environments.

'Smart Adaptive' Mesh Technology

HotPort 7000-900 mesh is uniquely designed for the noisy 900 MHz spectrum and introduces FireTide's 'Smart Adaptive' mesh technology to mitigate the effects of interference that typically brings down wireless throughput and reliability in this band. FireTide's noise-aware data path and noise filtering algorithms enable mesh to handle interference from other 900 MHz devices, as well as from adjacent frequency bands taken up by cellular and 3G traffic. Tools such as the spectrum analyzer, which is integrated into the product, allow a network administrator to remotely monitor the health of the network and take actions to further optimize the network performance.

Designed for Street-level Connectivity

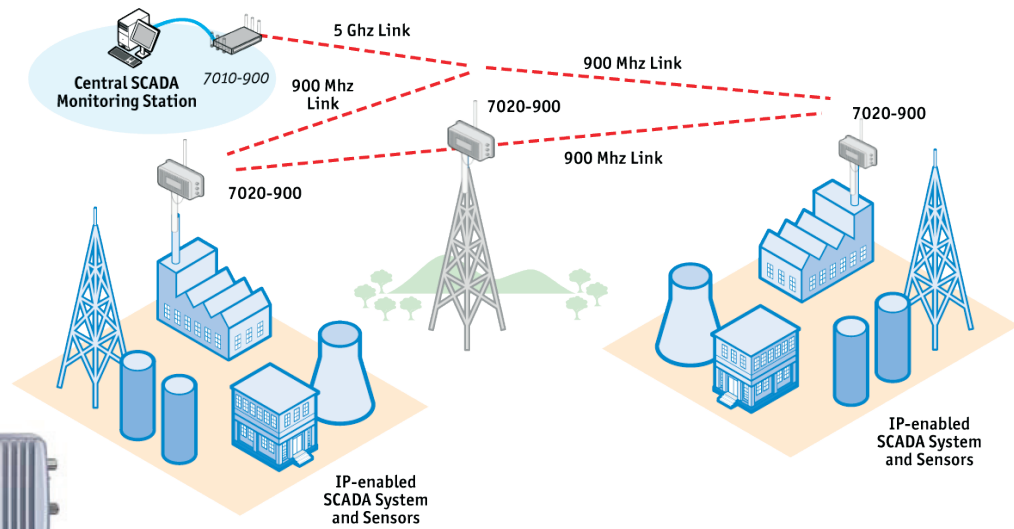
Wireless mesh, especially in the 900 MHz spectrum, has emerged as a viable

alternative to cellular and other types of communications for applications that require street-level connectivity where buildings and foliage often present a challenge. Wireless mesh is the best choice for critical applications, since it eliminates any single points of failure and provides multiple paths to ensure reliability and integrity of data.

Non-line-of-sight FireTide HotPort 7000-900 mesh also meets the utilities' needs for reliable, high-bandwidth communications in remote and rugged terrains where it can increase the backhaul capacity of SCADA monitoring networks and also be used for security and surveillance.

End-to-End Security

HotPort 7000-900 mesh nodes ensure maximum security and privacy of your data. They feature WEP and WPA2 encryption between nodes and 256-bit AES encryption from ingress to egress. All Layer 3 IP data is encapsulated and accessible only to FireTide mesh nodes. HotPort nodes support VLANs, segmenting traffic with secure access control on same physical infrastructure.



HotPort 7010-900 Indoor Mesh

HotPort 7020-900 Outdoor Mesh

Public utilities network backhaul using FireTide HotPort 7000-900

HotPort® 7000-900 Wireless Mesh Nodes

Specifications

Models

- HotPort 7010-900—Dual-radio Indoor Mesh Node
- HotPort 7020-900—Dual-radio Outdoor Mesh Node

Mesh Protocol

- Firetide AutoMesh™ Protocol

Security and Encryption

- 40 bit, 104 bit WEP keys
- 128 bit, 256 bit AES keys (WPA2, end-to-end data)
- MAC address filtering
- Digitally signed firmware files
- Digital certificates on nodes

Traffic Prioritization

- Quality of Service (QoS 802.1p)

Wireless Interface

- IEEE 802.11a/b/g/h ad hoc
- Transmit power up to 400 mW for 2.4/5 Ghz radio & 500 mW for 900 Mhz radio
- Frequency ranges
 - 902 – 928 Mhz
 - 2.412 – 2.483 GHz
 - 4.94 – 4.99 GHz (US public safety band)
 - 5.15 – 5.25 GHz
 - 5.25 – 5.35 GHz
 - 5.470 – 5.725 GHz
 - 5.725 – 5.825 GHz
- Receive sensitivity (typical)
 - 900 Mhz, DSSS
 - 1 Mbps: -94 dBm
 - 11 Mbps: -89 dBm
 - 900 Mhz, OFDM
 - 6 Mbps: -91 dBm
 - 54 Mbps: -71 dBm
 - 2.4 GHz, DSSS
 - 1 Mbps: -95 dBm
 - 11 Mbps: -88 dBm
 - 2.4 GHz, OFDM
 - 6 Mbps: -90 dBm
 - 54 Mbps: -73 dBm
 - 5 GHz
 - 6 Mbps: -90 dBm
 - 54 Mbps: -73 dBm
- Dynamic Frequency Selection (DFS)
- Transmit Power Control (TPC)

Mesh Management Software

- HotView Pro™ mesh management software (separate purchase required)

Mobility Controller Software

- Firetide Mobility Controller client and infrastructure software (bundled with HotView Pro)

Regulatory Agency Certifications

- Contact your Firetide dealer for product availability and certifications for your country
- RoHS and WEEE compliant

Warranty

- Hardware: one year limited warranty
- Software: 90 days limited warranty



HotPort 7020-900 Outdoor connectors

Outdoor Model—7020-900

Network Ports

- Three GigE 10/100/1000 Mbps Ethernet ports with weatherproof connectors, LED activity indicator
- IEEE 802.3, 802.3u compliant
- CSMA/CD 10/100 autosense
- Ports 2, 3 PSE Power over Ethernet per 802.3af

Enclosure

- Cast aluminum NEMA-4X/IP66 enclosure
- Six type-N female antenna connectors
- Two weatherproof Ethernet connectors
- Three weatherproof Ethernet connectors
- System LEDs (power, status, mesh)
- Weight: 12 lbs (5.4 Kg) with bracket and sunshield
- Dimensions: 11.6" X 8.1" X 4.1"

Power

- AC Input: 100-240 VAC, 50-60 Hz, 0.9 A
- DC Input: 12 VDC ±15%, 4 A powering 2 PoE devices; 1.7 A without PoE
- Ports 2 and 3: IEEE 802.3af compliant PoE (PSE) consumption

Environmental Specifications

- Operating temperature: -40°C to +60°C
- Storage temperature: -40°C to +85°C
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 5% to 95%
- Maximum altitude 15,000 feet (4600 meters)

Included Accessories

- Antennas: three 2.4 GHz and three 5 GHz, 5 dBi, indoor-rated omni directional and, one 900 MHz 3 dBi omni directional
- (included for network staging only)
- Bracket for pole and wall mounting
- External AC power cord (non-North America power cord is separate orderable item)
- Removable sunshield
- One weatherized Ethernet transition cable with watertight RJ-45 coupling

Optional Accessories

- Outdoor weatherized Ethernet cables, for use with HotPoint® access points
- Luminaire photocell socket power
- Single detachable, high gain, spectrum-specific, omni directional and directional antennas (see Antenna Guide)



HotPort 7010-900 Indoor connectors

Indoor Model—7010-900

Network Ports

- Four GigE 10/100/1000 Mbps Ethernet ports with LEDs
- IEEE 802.3, 802.3u compliant
- CSMA/CD 10/100 autosense

Enclosure

- System LEDs (power, status, mesh)
- Ethernet port LEDs (link, status, activity)
- Connectors: Six RPSMA female antenna, one power, four Ethernet (RJ-45)
- Reset button (recessed)
- Security slot for physical locking device
- Weight: 2 lb 14 oz (1.3 kg)
- Dimensions: 9.4" X 5.9" X 1.6"

Power

- DC Input: 12 VDC, 2.5 A
- Port 1: IEEE 802.3 at compliant PoE(PD)
- External power supply: 100-240 VAC, 50/60 Hz

Environmental Specifications

- Operating temperature: 0°C to +60°C
- Storage temperature: -20°C to +70°C
- Humidity (non-condensing): 10% to 90%
- Storage humidity (non-condensing): 5% to 95%
- Maximum altitude 15,000 feet (4600 meters)

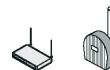
Included Accessories

- AC power adapter with cord (non-North America power cord is separate orderable item)
- Antennas: Three 2.4 GHz and three 5 GHz, 5 dBi, omni directional and, one 900 Mhz 3 dBi omni directional

Optional Accessories

- Wall or cubicle-mount bracket

Other Firetide Products



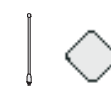
Access Points
HotPoint Indoor & Outdoor Access Points



CPE
HotClient Indoor & Outdoor Customer Premises Equipment



Software
HotView & HotView Pro Network Management Software, Firetide Mobility and WLAN Controller



Accessories
Antennas, Mounting Kits, Cables, etc.



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